



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,994	12/16/1999	TAO YE	SUN1P507	9656

22434 7590 09/23/2003

BEYER WEAVER & THOMAS LLP  
P.O. BOX 778  
BERKELEY, CA 94704-0778

EXAMINER

PHAM, THOMAS K

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 09/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/465,994

Applicant(s)

YE ET AL.

Examiner

Thomas K Pham

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1-19, 21, 22 and 26-29 is/are rejected.
- 7) ☒ Claim(s) 23-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |                                                                                                            |                                                                             |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>9</u> | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Amendment***

1. This action is in response to request for re-consideration filed on 07/07/2003.
2. Claims 1-19, 21-22 and 26-29 have been fully considered but they are not persuasive.
3. Claims 1-19, 21-22 and 26-29 stand rejected under 35 U.S.C. 102(e) as being anticipated by Judge et al. U.S. Patent No. 6,430,564.
4. Claim 20 is allowable over prior record.
5. Claims 23-25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. In the remark the applicant argues that cited reference fails to disclose:
  - I) "A state machine for an application manager that manages execution of an application in a digital television receiver environment, said state machine comprising: a loaded state in which the application has been loaded"; "a paused state in which the application is paused, the application being initialized to transition from said loaded state to said paused state". In addition "a state machine including an active state in which the application is executing, the application being started to transition from said pause state to said active state." Moreover " a destroyed state in which the application is destroyed, the application being terminated to transition from either said active state or said paused state to said destroyed state" as to claim 1.
  - II) "loading the application such that the application enters a loaded state." and "terminating the execution of the application when the application is in the loaded state, the paused state, or the active state such that the application enters a destroyed state." as to claim 8.

Art Unit: 2121

III) "Initializing an application such that the application enters a paused state" and "terminating the application such that the application enters a destroyed state." as to claim 14.

IV) "conditional and unconditional termination of the application" as to claim 15.

V) "an interface including a set of instructions that enable a process other than the application to initiate execution of the instructions for starting execution of the application, that enable a process other than the application or the application to initiate execution of the instructions for pausing the execution of the application, and that enable a process other than the application or the application to initiate execution of the instructions for terminating the application." as to claim 19.

VI) "communicating that the application has decided to terminate and has entered a destroyed state from a loaded state, a paused state, or an active state. " Moreover " communicating that the application has decided to pause its execution and has entered the paused state from the active state." as to claim 21.

VII) "communicating that the application wishes to resume execution and enter the active state from the paused state" as to claims 22 and 26.

7. In response to applicant's argument,

I) It was noted that prior art (Judge et al USPN 6,430,564) teaches (figure 2) a data manager 48 with the classes of loading, unloading, creating, getting etc. which represent the states of a state machine for an application manager that manages execution of an application in a digital television receiver environment and (column 3 lines 33-35, "Data manager 48 is responsible for the loading and unloading of data classes and creating, keeping track of, and caching data

Art Unit: 2121

objects.”). Prior art also teaches (column 3 lines 56-57, “Application manager 44 provides downloading, starting, stopping”) wherein the stopping and starting represent a paused state in which the application is paused; and (column 3 lines 27-30, “Application Manager 44, which is responsible for the downloading, execution, and caching of other Java based programs from the network 14.”) represents an active state in which the application is executing, and (column 3 lines 42-43, “FIG. 3 illustrates how an application 26a, 26b, 26c is brought to life.”) teaches the application being started to transition from said paused state to said active state; Furthermore, (column 5 lines 32-34, “When creating a data object, Data manager 48 preferably caches the data object 32a, 32b, 32c by default in the data cache 54, and destroys the data object 32a, 32b, 32c”) teaches a destroyed state in which the application is destroyed, the application being terminated to transition from either said active state or said paused state to said destroyed state. Therefore, it is clear that the loading class is a loaded state in which the application has been loaded, to transition from loaded state to said paused state, to transition from said pause state to said active state, or to transition from either said active state or said paused state to said destroyed state.

II) Prior art also suggest (column 3 lines 33-35, “Data manager 48 is responsible for the loading and unloading of data classes and creating, keeping track of, and caching data objects.”) and (column 3 lines 56-57, “Application manager 44 provides downloading, starting, stopping”) wherein the stopping and starting represent a paused state in which the application is paused, and (column 5 lines 32-34, “When creating a data object, Data manager 48 preferably caches the data object 32a, 32b, 32c by default in the data cache 54, and destroys the data object 32a, 32b, 32c”). Therefore, it is clear that the prior art teaches terminating the execution of the application when

Art Unit: 2121

the application is in the loaded state, the paused state, or the active state such that the application enters a destroyed state.

III) Prior art also suggest (column 5 lines 32-34, "When creating a data object, Data manager 48 preferably caches the data object 32a, 32b, 32c by default in the data cache 54, and destroys the data object 32a, 32b, 32c"). Therefore, it is clear that the data manager 48 includes instructions for terminating the application such that the application enters a destroyed state.

IV) Prior art also suggest (column 6 lines 40-42, "memory management handler 27 reacts by judiciously dumping application and/or data class objects and or application and/or data objects from memory."). Therefore, examiner interprets the dumping of application created an unconditionally terminating the execution of the application.

V) Prior art also teaches (column 3 lines 56-57, "Application manager 44 provides downloading, starting, stopping, querying, and memory management capabilities.") and (column 4 lines 10-14, "Executing application, including both local applications executing within the embedded device 20 and remote applications communicating with the embedded device 20 over network 14, interact with data objects via Data Manager 48."). Therefore, it is clear that there is an interface including a set of instructions that enable a process other than the application to initiate execution of the instructions for starting execution of the application, that enable a process other than the application or the application to initiate execution of the instructions for pausing the execution of the application, and that enable a process other than the application or the application to initiate execution of the instructions for terminating the application.

VI) Prior art also teaches (column 7 lines 35-39, "a determination 504 is made as to whether the execution of the received request would result in a low-or-no-memory condition. If so,

Art Unit: 2121

application or data class object(s) and/or application or data object(s) are selected 506 for unloading from memory 50"). Therefore, it is clear that a determination is made unload from memory or to enter either a destroyed state from a loaded state, a paused state, an active state or enter a paused state from an active state.

VII) Prior art also teaches (column 3 lines 39-41, "When JVM 22 begins executing on embedded device 20, it creates objects for and begins executing Application Manager 44 and Data Manager 48.") and (column 3 lines 42-43, "FIG. 3 illustrates how an application 26a, 26b, 26c is brought to life."). Therefore, it is clear that when the application wishes to resume execution, its entered the active state from the paused state.

### *Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2121

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874. The examiner can normally be reached on Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor, *Mr. Anil Khatri*, can be reached on (703) 305-0282.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

**Thomas Pham**  
*Patent Examiner*

TP

September 19, 2003

*Ramesh Patel*  
RAMESH PATEL  
PRIMARY EXAMINER 9/22/03  
*For Anil Khatri*